# Nursing Homes and Related Facilities

## *A Review of the Literature*

**EDWARD EAGLE, Ph.D.**

THE EARLY HISTORY of nursing homes is obscure but their extremely rapid growth during the past 30 years "seems more like an eruption than an evolutionary development," as stated by Solon and Baney (*1*). These authors attributed the phenomenal expansion of nursing homes to many factors, including the increased lifespan and resultant large aged population, changes in family structure and living patterns in which the older relatives are shelved, the increasing prevalence of chronic diseases, the disrepute into which the public almshouse had fallen, and the emergence of a new philosophy in public welfare in the Social Security Act of 1935 and its amendments. The needy aged, healthy or ailing, now possessing cash to pay for their subsistence created a response to their requirements for places to live. Existing structures emerged as either boarding homes for the elderly or even nursing homes at the outset. But eventually even the boarding homes gradually changed to meet the growing needs of their residents for more than just food and lodging.

Today, as in the past, there is no clearcut distinction between the various kinds of facilities loosely called "nursing homes" in the United States, despite the increased interest and attention being directed toward them and their residents.

### Inventories of Nursing Homes

The earliest compilation of data on "nursing homes," made in conjunction with a study of institutional mortality by the Bureau of the Census, showed that in 1939 there were 1,200 facilities, with a total capacity of about 25,000 beds, called nursing homes, convalescent homes, or rest homes (*2*).

During 1953–54, as a joint project of the Commission on Chronic Illness and the Public Health Service, a study was made of nursing homes and similar long term care facilities in 13 participating States with a combined civilian population representing 25.9 percent of the total U.S. population (*3*). Noting that the nursing home is a new phenomenon in American life that is not yet clearly conceived and understood and which means different things in different localities or to different people, Solon and coauthors emphasized the great variability of this designation among the States.

For the 13-State report (table 1) nursing homes were defined as establishments which provide skilled nursing home care as their primary and predominant function, and the central focus was the proprietary, skilled nursing home, recognized as one of the most numerous and least known of a variety of nonhospital care facilities. Of all the nursing homes in existence at the time of this survey (1953–54), 72 percent could not be considered nursing homes under this strict definition (*3*).

The first nationwide inventory of nursing and

*Dr. Eagle, a physiologist and toxicologist, is first vice president and chairman of the research committee of the Illinois Association for the Mentally Retarded, Chicago.*

related homes was undertaken in 1954 by the Division of Hospital Facilities to aid in the implementation of the amendments to Title VI of the Public Health Service Act (Hill-Burton) which provided funds for constructing nonprofit homes (*1*, *4–6*). This inventory departed from the usual popular designations such as nursing home, home for the aged, public home, boarding care home, and rest home—it proceeded with a classification based on the primary level of care provided, with greatest emphasis on the skilled nursing home. The estimated number of establishments in this survey included 7,000 skilled nursing homes (180,000 beds), 2,000 personal care homes with some skilled nursing (80,000 beds), 7,000 personal care homes without skilled nursing (110,000 beds), and 9,000 sheltered care homes (80,000 beds). Of this estimated total of 25,000 installations, 82.8 percent were proprietary.

According to data on nursing homes filed by each of the 48 States plus territories and possessions under the Federal grant-in-aid program based on the Hill-Burton Hospital Construction Act, there were 307,681 beds in skilled nursing homes at the end of fiscal year 1960. Of this total, 134,030 beds or 43.7 percent were reported by the State agencies as nonacceptable for long-range planning purposes, based on fire and health hazards as defined by Hill-Burton standards. The median was 33.7 percent for nonacceptable beds in skilled nursing homes for all 48 States plus Alaska and Hawaii. This classification of nonacceptability did not include the beds in these same skilled nursing homes which were unsatisfactory for such other reasons as poor living conditions, inadequate staff, absence of recreational facilities, or lack of rehabilitation services (*7*).

A second nationwide inventory of nursing homes and related facilities in 1961 (*8*) not only supplied data comparable to the 1954 in-

**Table 1. Data from a study of nursing homes and similar facilities in 13 participating States, 1953–54**

| Characteristics of patients and types of services required by them | Proprietary nursing homes | Voluntary and public nursing homes | Domiciliary care homes |
|---|---|---|---|
| | Number | | |
| Homes | 1, 686 | 80 | 2, 627 |
| Beds | 28, 191 | 4, 288 | 33, 243 |
| Patients | 38, 557 | 3, 773 | 26, 964 |
| Median age of patients | 80 | 78 | 79 |
| | Percent | | |
| Proprietary homes | 100. 0 | 0 | 60. 4 |
| Age of patients: | | | |
| Under 45 | 1. 4 | 3. 4 | 1. 1 |
| 45–64 | 7. 6 | 18. 0 | 9. 3 |
| 65 and over | 89. 1 | 78. 6 | 89. 6 |
| Disability: | | | |
| Severely limited in ability to walk | 53. 5 | 37. 6 | 13. 2 |
| Completely bedfast | 20. 4 | 12. 8 | 3. 1 |
| Mentally confused | 56. 1 | 43. 4 | 29. 1 |
| Incontinent | 35. 0 | 21. 4 | 8. 8 |
| Public assistance recipients | 51. 3 | 50. 0 | 46. 0 |
| Services required: | | | |
| Medication | 66. 0 | 67. 0 | 30. 0 |
| Rub and massage | 64. 0 | 37. 0 | 11. 0 |
| Full bed bath | 55. 0 | 31. 0 | 9. 0 |
| Help in dressing | 48. 0 | 32. 0 | 17. 0 |
| Help with tub or shower bath | 42. 0 | 44. 0 | 34. 0 |
| Bedpan | 39. 0 | 27. 0 | 6. 0 |
| Enemas | 26. 0 | 20. 0 | 5. 0 |
| Help in feeding | 24. 0 | 19. 0 | 7. 0 |

SOURCE: Reference 3.

**Table 2. Primary types of care provided in 21,151 nursing homes and related facilities, as reported in 1961 nationwide inventory**

| Primary types of care | Nursing homes | Homes for the aged | Boarding homes for the aged | Rest homes |
|---|---|---|---|---|
| | Number | | | |
| Homes | 11, 251 | 3, 432 | 5, 392 | 1, 076 |
| Beds | 353, 285 | 141, 894 | 41, 705 | 24, 880 |
| | Percent | | | |
| All homes | 53. 2 | 16. 2 | 25. 5 | 5. 1 |
| Proprietary homes | 87. 9 | 56. 4 | 97. 5 | 75. 7 |
| Beds | 62. 9 | 25. 3 | 7. 4 | 4. 4 |
| Types of care: | | | | |
| Skilled nursing | 82. 1 | 3. 8 | . 3 | . 7 |
| Personal, with skilled nursing | 4. 8 | 13. 3 | 1. 8 | 21. 7 |
| Personal, without skilled nursing | 12. 0 | 66. 4 | 89. 8 | 72. 7 |
| Residential, with some skilled nursing | . 5 | 2. 8 | . 1 | . 1 |
| Residential, without skilled nursing | . 6 | 13. 7 | 7. 9 | 4. 9 |

SOURCES: References 8 and 9.

ventory but also presented for the first time identifying characteristics of these facilities according to the terminology used by the various States for licensure purposes—nursing homes, homes for the aged, and rest homes (including sheltered care and personal care homes), as listed in table 2.

In 1961 the number of beds for skilled nursing care reported in nursing homes and related facilities varied from a low of 3.6 per 1,000 persons aged 65 and over in North Carolina to a high of 50.1 beds per 1,000 persons aged 65 and over in the State of Washington. The median for all 50 States was 18.4 and the mean was 20.5 beds per 1,000 persons aged 65 and over (*9*).

The National Center for Health Statistics of the Public Health Service has been collecting data on the health of the general population of the United States since it was authorized by Congress in 1956. In April–June 1963 it conducted its first nationwide sample survey of nursing homes, convalescent rest homes, homes for the aged, and other establishments which provide medical, nursing, personal, or domiciliary care for the aged, infirm, and chronically ill. Facilities which provided only room and board were not within the scope of this study, for which the Bureau of the Census collected the data (*10–13*). An estimated 17,098 facilities were described for the entire country; 728 of these were in the special category of nursing home units in hospitals. The remaining 16,370 facilities are categorized in table 3.

The report of the second survey of an institutional population, conducted by the National Center for Health Statistics and the Bureau of the Census (*14*), contained data collected May–June 1964 (table 4).

A 1965 compilation of licensed nursing homes, based on inquiries from the national office of the American Nursing Home Association, addressed to all State agencies licensing nursing homes, yielded a total of 12,112 licensed nursing homes (bed capacity 489,113) and an additional 1,436 related facilities with 95,031 nursing-home-type beds (*15*).

A nationwide survey of nursing homes and related facilities by the Public Health Service was completed in mid-1965 (*16*). The survey included 18,958 licensed installations ranging from skilled nursing homes to retirement residences, distributed as follows: 12,048 nursing care homes (523,900 beds), 1,403 personal care homes with nursing (117,762 beds), and 5,507 personal care homes without nursing (118,779 beds). When categorized according to licensure terminology, these 18,958 facilities consisted of 12,244 nursing homes, 326 nursing home units in hospitals, 2,006 homes for the aged, 997 boarding homes for the aged, and 3,385 personal care and rest homes. Only 4.7 percent of the homes for the aged, none of the boarding

homes for the aged, and none of the personal care and rest homes had a registered professional nurse in charge of the nursing care; 77.3 percent of the boarding homes for the aged and 86.2 percent of the personal care and rest homes had an orderly or attendant in charge of nursing care.

A tabulation of nursing homes and homes for the aged in the nation, completed in late 1967, covered only those with 25 beds or more (both proprietary and nonprofit) in all parts of the country. This compilation was concerned with recent data on occupancy rates, operating costs per patient per day, type and number of personnel, patient characteristics, and expansion plans (*17*).

### Minimum Standards, Rules, and Regulations

Nursing homes are licensed currently in each of the 50 States, in 45 by the department of health, in three by the department of welfare, in one by the State department of hospitals, and in one by the department of institutions and agencies. As recently as 1950, however, only five States had nursing home licensing laws. Nursing homes are heterogeneous institutions, varying widely in definition and in the nature of the facilities and care provided in them, not only in different States but also within the individual States. In some States nursing homes are comparable to hospitals (except for surgery) and are in fact licensed as such. In other States

**Table 3. Data from a nationwide sample survey of nursing homes and related facilities, April–June 1963**

| Characteristics of patients, admission policies, and types of nursing personnel | Nursing care homes | Personal care homes with some nursing | Personal care homes without nursing | All types[1] |
|---|---|---|---|---|
| | Number | | | |
| Homes | 7, 834 | 4, 968 | 3, 568 | 16, 370 |
| Beds | 316, 175 | 194, 005 | 58, 366 | 568, 546 |
| Residents | 286, 373 | 170, 678 | 48, 191 | 505, 242 |
| Average number residents per home | 37 | 34 | 14 | 31 |
| Average length of stay (years) | 2. 5 | 3. 8 | 3. 4 | 3. 0 |
| | Percent | | | |
| Proprietary homes | 87. 4 | 73. 0 | 82. 8 | 82. 0 |
| Age of residents: | | | | |
| Under 65 | 10. 5 | 12. 5 | 17. 6 | 11. 8 |
| 65–74 | 18. 1 | 16. 9 | 18. 4 | 17. 8 |
| 75–84 | 40. 6 | 42. 3 | 38. 9 | 41. 0 |
| 85 and over | 30. 8 | 28. 3 | 25. 1 | 29. 4 |
| Physical status of residents: | | | | |
| Cannot walk unassisted | 53. 3 | 30. 0 | 17. 7 | 42. 0 |
| Partially or completely bedfast | 52. 4 | 33. 2 | 20. 1 | 42. 9 |
| Incontinent | 33. 8 | 19. 4 | 11. 7 | 26. 8 |
| Mentally confused, sometimes or always | 57. 1 | 42. 1 | 33. 2 | 49. 8 |
| Public assistance recipients | 53. 0 | 42. 0 | 47. 9 | 48. 6 |
| Types of patients accepted: | | | | |
| Over age 65 only | 24. 5 | 36. 8 | 47. 1 | 33. 2 |
| Bedfast | 94. 2 | 63. 2 | 17. 7 | 68. 1 |
| Mentally ill | 23. 6 | 31. 4 | 18. 5 | 24. 9 |
| Public assistance recipients | 92. 2 | 90. 2 | 88. 3 | 90. 7 |
| Type of nursing personnel: | | | | |
| Full-time registered nurse in charge | 55. 1 | 26. 0 | 4. 6 | 35. 3 |
| No nurse or nurse's aide on duty during 24 hours | 3. 9 | 20. 7 | 66. 2 | 22. 6 |
| No registered nurse, licensed practical nurse, or other nursing personnel | 4. 0 | 37. 2 | 74. 7 | 29. 5 |

[1] Excludes 728 nursing home units in hospitals.

SOURCES: References 10–13.

**Table 4. Data from a nationwide survey of nursing and personal care homes, May–June 1964**

| Resident, employees, and nursing staff | Nursing care homes | Personal care homes with some nursing | Personal care homes without nursing | All homes |
|---|---|---|---|---|
| Number of homes | 9, 350 | 5, 240 | 2, 810 | 17, 400 |
| Number of residents | 373, 300 | 145, 400 | 35, 300 | 554, 000 |
| Number of employees | 210, 000 | 58, 700 | 12, 300 | 281, 000 |
| Percent of proprietary homes | 87. 4 | 70. 8 | 82. 2 | 81. 6 |
| Percent of staff who are: | | | | |
| Registered nurses | 7. 6 | 4. 0 | ----- | 6. 7 |
| Licensed practical nurses | 9. 1 | 3. 4 | 7. 0 | 7. 9 |
| Other professionals | 1. 4 | 1. 5 | ----- | 1. 4 |
| Nurse's aides | 49. 5 | 38. 4 | 22. 1 | 46. 3 |
| Other nonprofessionals | 32. 4 | 52. 7 | 70. 9 | 37. 7 |
| Ratio of residents to: | | | | |
| Full time total staff | 1. 9 | 2. 7 | 3. 1 | 2. 2 |
| Full time nursing staff | 3. 0 | 6. 0 | 11. 8 | 3. 6 |

SOURCE: Reference 14.

nursing homes need offer no more than room and board of varying degrees of quality. The current regulations of 26 States specifically distinguish nursing homes from homes for the aged; 35 States distinguish between nursing homes and domiciliary facilities such as boarding homes, personal care homes, and rest homes.

The minimum standards, rules, and regulations for nursing homes of all the States show little uniformity in terminology, in definitions, or in requirements, and they defy simple tabulation. Most consistent is the stipulation by all States that each patient in a nursing home shall be under the care of a physician. Actually, this means only that the patient or a person responsible for him designates a physician who would attend the patient when called. In the 1953–54 survey of nursing homes (*3*) it was reported that between 6 and 11 percent of the patients had not seen a physician for 1 to more than 2 years, and that half of all nursing home residents who had not seen a physician since their admission had been in the home for as long as 6 months or more.

In 48 States the nursing home is required to arrange for a licensed physician who would be available for emergency calls when the patient's physician cannot be reached. On the other hand, the minimum standards, rules, and regulations (hereafter called regulations) of 34 States do not even refer to dentists or provision for dental care or services. The variations in the regulations of all 50 States (even to complete failure to mention certain items) likewise applies to highly important factors such as storage, preparation, and handling of medicines and narcotics; food handling and dietary service; maintenance of physical plant; environmental sanitation and housekeeping; fire safety and protection; and recreational, social, and religious activities.

The regulations of 28 States specifically use the word "skilled" in referring to the type of nursing care required in their nursing homes, and those of 16 other States define and describe nursing care so as to leave little doubt that skilled nursing care is required. While many of the States have their own variations, skilled nursing care has been defined generally as providing services for the sick which require technical knowledge and skill beyond that which the untrained person possesses, including such procedures as irrigations, catheterizations, application of dressings, administration of medicine and narcotics, and other treatments prescribed by a physician. The regulations of the remaining six States appear to make nursing care of any kind optional rather than mandatory in their nursing homes.

*Supervision of nursing care.* In 17 States the

supervisor or director of nursing must be a registered nurse, one State specifies a licensed practical nurse, 28 States stipulate nursing supervision by either a registered nurse or a licensed practical nurse, and four States require lesser qualifications. However, only 13 of all 50 States require that a registered nurse or licensed practical nurse supervise nursing care on a 24-hour basis.

*Nursing care.* Of course, the caliber of the nursing care in a given nursing home is not solely a function of the education, training, and experience of its supervisor of nursing who in some States can be employed part time but in most States works 40 hours per week. The quality of the nursing care rests more heavily upon the ratio of competent registered nurses and licensed practical nurses to nonprofessionals such as nurse's aides, orderlies, attendants, and auxiliary personnel who represent the major part of the "nursing staff." Some States prohibit assistance with nursing care by nonnursing personnel such as maids, cooks, and laundry and plant maintenance employees.

The regulations of 16 States specify the daily minimum ratios of nursing staff members to patients for each of the three 8-hour shifts. The regulations of 12 other States state the minimum average number of hours of nursing staff time to be given each patient during a 24-hour period. Calculation of a common denominator from the widely varying minimum staffing standards for nursing personnel in the current regulations was possible for these 28 States, and an average ratio of one nursing staff member (professional or nonprofessional) for each 14 patients at all times (around the clock) was obtained. For most of these States the indicated ratio of nursing staff members to patients serves only as a guide. Factors such as age and condition of the patients, the kind of physical plant and facilities, the type of programs provided for recreation, occupational therapy, and so forth, and the degree of training and experience of the persons providing the nursing care affect the minimum number of nursing staff members needed on duty.

Eighteen other States merely use qualifying adjectives—"sufficient," "adequate," "proper number," and "enough"—in lieu of a finite number for the nursing staff members required in licensed nursing homes. The weakness of such vague requirements is obvious. Only 17 States require continuous, 24-hour, professional nursing by a registered nurse or a licensed practical nurse.

*Administrators.* The administrator of a nursing home (sometimes called manager, executive officer, operator, or superintendent) is the owner or a person designated by the owner to assume the accountability as executive head of the home for overall management and day-to-day operations. The regulations of many States stress the administrator's importance and his responsibility for supervision of all personnel, for the care and welfare of the residents, for the selection and admission of patients, for dealing with consulting physicians, for management of the business affairs including that of informing prospective patients or their agents as to the rates and extra charges, for adherence to nursing home regulations, and for completion of all reports and records. However, the regulations of 13 States do not even mention the administrator (by any title), and those of 10 other States do little more than refer to him.

The regulations of only nine States require that the administrator be at least a high school graduate or its equivalent, and 28 States have no educational, training, or experience requirements for the person holding this important position. Only 14 States require the administrator to be over 21 years of age, only 22 States specify that he be in good physical health, only 19 States make the point that he be "in good mental health," 21 States mention that he be "of good character," and nine States indicate that he shall have an "interest in people" or an "interest in the welfare of the patients." Of all the States, only three require that the administrator must also be licensed, and that specific educational, training, or experience requirements must be met before such a license can be issued.

The April 1965 revision of the Illinois nursing home regulations (*18*) created a problem with respect to the requirement for the administrator (as well as for the director of nursing, the professional nursing staff, and other nursing staff personnel) by the addition of the term "occupied" wherever the number of beds was mentioned. For example, a nursing home with exactly 100 beds formerly had to comply

with the specific regulations for a "nursing home of 100 beds or more." Now, in terms of occupied beds, the requirements for the administrator and all other key personnel are different when a particular nursing home is 100 percent occupied, 51 percent occupied, or 49 percent occupied. How this situation will be policed is not indicated in the revision.

The recent statement by Cashman and Myers (*19*) regarding minimum standards, rules, and regulations is pertinent: "Defining standards, on paper, at a certain level and promulgating policies and regulations for interpretation of standards is a profitable exercise in the abstract. The test of standards, however, is in their application."

### Model Nursing Home Standards and Laws

The wide variations in the statutes and minimum standards, rules, and regulations for nursing homes and related facilities in all the States has become a matter of increasing concern because of widespread use of these facilities by patients under various Federal-State public assistance programs as well as under local general assistance programs.

In addition, title XVIII of the 1965 amendments to the Social Security Act requires that the Secretary of Health, Education, and Welfare establish the conditions under which hospitals, home health agencies, extended care facilities, and independent laboratories would be involved in Medicare. The new term "extended care facility" is defined (in part) as an institution primarily engaged in providing skilled nursing care or rehabilitative services for the rehabilitation of injured, disabled, or sick inpatients (*20*). It appears, therefore, that an extended care facility is not a hospital but is more than the type of nursing home defined in the regulations of many States; it resembles more closely the skilled nursing home providing hospital-type care (exclusive of surgery) but not lifetime care.

One condition under which extended care facilities can participate in Medicare is that at least one registered professional nurse is employed full time and that 24-hour skilled nursing care is available. Based on this one requirement alone, it was estimated that not more than 40 percent of the institutions currently called nursing homes would qualify for participation (*19*).

In June 1960 the governing bodies of the American Medical Association, the American Nursing Home Association, and the American Hospital Association approved and jointly published certain guides for medical care in nursing homes and related installations to assist physicians in making the best use of such establishments and to aid administrators in seeing that the patients receive proper medical attention. Separate guidelines were published for (*a*) nursing homes with skilled nursing care or personal care or both, and (*b*) homes for personal care and homes for the aged (*21*).

On August 5, 1960, the American Nurses' Association adopted a statement of standards for nursing care in nursing homes. Emphasizing that the major function of a nursing home is to provide nursing care and that skilled nursing care is a necessity, the statement included among its 17 provisions that the nursing home should provide direct supervision of nursing care by registered professional nurses (preferably on the premises day and night) and that registered professional nurses or licensed practical nurses should be on duty at all times (*22*).

In 1961 the Division of Chronic Diseases of the Public Health Service published a "Nursing Homes Standards Guide" (*23*) which included recommendations relating to standards for establishing, maintaining, and operating nursing homes to assist State and local licensure agencies in instituting and improving laws, regulations, and ordinances. This guide was reprinted in 1963. Also in 1963 the Board of Hospitals of the City of New York published its hospital code for proprietary nursing homes which could not only serve as a model for municipal codes for nursing homes but could also aid in improving the existing regulations in many States (*24*).

In 1966 the Committee of State Officials on Suggested State Legislation of the Council of State Governments published a model nursing home statute to guide those States which might wish to consider comprehensive changes in their present nursing home legislation (*25*). All the examples mentioned above, combined with the best features of some of the minimum standards, rules, and regulations of many of the

States, could yield excellent legislation in this field. No regulations, however, are better than their degree of enforcement.

### Operating Costs and Charges for Care

Costs of operating nursing homes and parallel institutions depend on many factors, some of which are location; capital invested; type of construction and design of the physical plant; the degree of utilization of the plant, equipment, and services; the quality and efficiency of administration; dietary costs; levels of education, training, and experience as well as salaries of professional and nonprofessional personnel; and the quality and quantity of their medical, nursing, physical therapy, occupational therapy, rehabilitation, recreational, religious, social service, and personal hygiene programs.

While there have been at least nine important conferences on nursing homes and similar facilities (*26–34*), little or no data were obtained on operating costs and charges for care. Limited data for certain States are available for 1960 and 1961 (*7, 35–38*), and more recent published data are listed in table 5. Continuing study of these costs and charges is indicated in order to provide a basis for fair and proper payments for the care of the increasing numbers of aged, chronically ill, indigent, mentally ill, and even mentally retarded persons being placed in these facilities, particularly since Federal funds are involved.

### Patient Care in Nursing Homes

Based on personal interviews with 188 randomly selected administrators of nursing homes in Illinois and with 97 physicans attending patients in these homes, Sondag and Kramer (*49*) reported in 1965 that only about one-half of these physicians were usually familiar with nursing home regulations published by the Illinois Department of Public Health. There were several problems related to the patients whose care was being paid for by the Illinois Department of Public Aid (about one-third of all those in the surveyed homes); some of the physicians were not approved by the department, some of the physicians would not accept the rate paid for the care of public assistance recipients, and the department would not pay travel mileage.

Although Illinois law requires a physical examination of patients within 72 hours after admission, only 50 percent of the nursing homes reported that this was always performed, 41 percent stated usually, 3 percent stated occasionally, and 3 percent reported that it was seldom done. According to Sondag and Kramer's report: "Recent surveys of nursing home administrators and attending physicians reveal that many nursing home patients do not even receive a minimum standard of medical service as required by law. Many other aspects of medical care which are professionally desirable, if not legally mandatory, are given inadequate attention by physicians." The senior author of this report is chief of the nursing home licensing agency in Illinois.

An evaluation of patient care in nursing home facilities showed that in 1967 one-fourth of the Massachusetts nursing homes visited provided reasonably adequate care, another fourth displayed promise of development and the remaining half apparently had irremediable shortcomings (*50*). Virutally none had appropriate dietary consultation or could offer special diets, maintenance of efficient records was absent, and effective arrangements for adequate medical supervision were lacking, as were consistent staffing arrangements for physical and occupational therapy.

In a special session at the annual meeting of the American Public Health Association in San Francisco on November 1, 1966, several authors examined recent legislation and appropriations for health services and their impact on certain medical care concerns. In discussing new partnerships in the delivery of services, Breslow (*51*) stressed the public health view of this need as altered by new legislative and public policies, with the result still uncertain. He noted a neglected aspect—people who need medical care want it to be provided with respect and dignity, the same way in which people want education, housing, and jobs.

Peterson (*52*) was concerned with the impact of recent Federal legislation on personal health services, a matter of considerable and long term interest since and estimated 60 million aged and underprivileged people (more than 25 percent of the total population) will be covered by Medicare and Medicaid. A most important concern

**Table 5. Summary of published payments for care in nursing homes and related facilities and operating costs of such facilities, 1962–67**

| Date, location, and reference number | Monthly range (per patient) | Notes |
|---|---|---|
| 1962, 48 States (*39*) | $75–$700 | Payments. |
| 1962–63, Kansas (*40*) | 75–455 | Average payment of $147 for private patients. |
| Do | 75–305 | Average payment of $124 for welfare patients. |
| Late 1963, California (*41*) | 212–590 | Average operating cost of $339, nursing and convalescent homes. |
| Aug. 31, 1963, Ohio (*42*) | 50–900 | Payments. |
| November 1963, California (*43*) | | Flat payments of $223 for basic care and $277 for extensive care. |
| December 1963, all States (*44*) | 40–260 | Low payment in Mississippi, high in Connecticut. |
| April–June 1963, all States (*10*) | 134–339 | Average payment of $179. |
| 1964, Massachusetts (*45a*) | | Flat payment of $208 for welfare patients. |
| 1964, Wisconsin (*45a*) | 75–275 | Payments for public assistance recipients. |
| 1964, Iowa (*45a*) | 80–225 | Average payment of $150 for public assistance recipients. |
| 1964, New York (*45a*) | 115–330 | Average payment of $188 for welfare recipients. |
| 1964, Connecticut (*45b*) | | Payments of $183 to rest homes, $286 to skilled homes. |
| 1964, all States (*46*) | | Average operating cost of $243. |
| 1964–65, Illinois (*47*) | 147–271 | Average operating cost of $182 for intermediate care. |
| Do | 275–514 | Average operating cost of $353 for skilled and extensive care. |
| 1965, Indiana (*48a*) | 106–289 | Vendor payments. |
| 1965, Colorado (*48b*) | 250–450 | Maximum payment for welfare recipients of $205 ($195 plus $10 for expenses). |
| 1965, Massachusetts [1] | 208–287 | Operating costs. |
| 1965, Ohio (*42*) | | Maximum allowance of $170 under aid for aged. |
| 1967, all States (*17*) | 286–370 | Operating costs, nursing homes. |
| Do | 195–308 | Operating costs, homes for the aged. |

[1] Data from Massachusetts Rate Setting Board for Convalescent or Nursing Homes and Rest Homes (personal communication, Jan. 6, 1966).

is that medical resources are present "in quantity and quality." In many States efforts are being made not only to improve standards but to encourage attainment of these standards by nursing homes. Referring to title 19 (Medicaid), which established a new Federal-State program of medical assistance for low-income groups, Winston (*53*) pointed out that the Federal law requires skilled nursing home care for adults as one of the five specific services to be provided as of July 1, 1967, and not care for "ill-tended patients in cheap nursing homes."

### Nursing Home Fires

The number of fires in nursing homes is not available for any particular year since many fires with small losses are not reported to the National Fire Protection Association, particularly those which are detected promptly by capable personnel or automatic detection equipment and extinguished quickly. Referring to the period from 1947 to 1957, Babcock (*54*) stated: "During the past 10 years 283 lives have been lost in 15 of the most notable nursing home fires. Considering the fact that there are only about 25,000 licensed nursing homes in the United States, this record of slaughter by fire places nursing homes in the unenviable position of number one on the list of unsafe places to live." In the 4-year period from 1961 to 1965 the National Fire Protection Association estimated that there were 2,500 fires in nursing homes at a cost of $2.9 million, and for 1965 an estimated 800 nursing home fires caused $800,000 damage and the loss of 38 lives (personal communication, June 6, 1966).

The most serious nursing home fire in the past two decades occurred in Warrenton, Mo., on Feb-

ruary 17, 1957, when 72 aged residents were killed (*55*). The second largest loss of life in a nursing home fire during this period was in Fitchville, Ohio, on November 23, 1963. This nursing home, a remodeled toy factory, was situated in a remote rural area 7.6 miles from the nearest volunteer fire department. Of the 84 residents, 80 percent of whom were wards of the State or county, 63 died (*56*). For the 6-year period from January 1959 to January 1965, Massachusetts led the States with four nursing home fires in which 13 people perished. Illinois was second during this period with three nursing home fires in which 15 persons died.

## Conclusions

As indicated by the literature, the current minimum standards, rules, and regulations for nursing homes and related facilities in all 50 States show little uniformity in nomenclature and defy simple tabulation. As used in the regulations, the term "nursing home" can mean anything from a facility which provides care comparable to that provided by a hospital (excluding surgery) to a facility which offers no more than room and board of limited quality.

Some States group all types of homes for their elder citizens under "homes for the aged," while others base their terminology and definitions on the kind of facility (nursing home, home for the aged, boarding home, rest home) or on the primary type of care provided (skilled nursing care, personal care, residential care) or on the type of ownership (proprietary, church-related, other voluntary nonprofit).

Limited data are available on costs of operation and charges for care in nursing homes in certain States, primarily from testimony before U.S. Senate committees. Continuing study and detailed reports of these costs and charges are indicated in order to provide a basis for fair and proper payments to nursing homes and related facilities, particularly since Federal funds are involved.

Fire experience data, including reports of fatalities in nursing homes, place them on top of the list of unsafe places to live.

### REFERENCES


(*1*) Solon, J., and Baney, A. M.: Ownership and size of nursing homes. Public Health Rep 70: 437–444, May 1955.

(*2*) Block, L.: Hospital and other institutional facilities and services, 1939. Vital Statistics—Special Reports 13, Nos. 1–57. U.S. Bureau of the Census, Washington, D.C., 1942.

(*3*) Solon, J., Roberts, D. W., Krueger, D. E., and Baney, A. M.: Nursing homes, their patients and their care. PHS Publication No. 503 (Public Health Monograph No. 46). U.S. Government Printing Office, Washington, D.C., 1957.

(*4*) Solon, J., and Baney, A. M.: Inventory of nursing homes and related facilities. Public Health Rep 69: 1121–1132, December 1954.

(*5*) Solon, J., and Baney, A. M.: General hospital and nursing home beds in urban and rural areas. Public Health Rep 71: 985–992, October 1956.

(*6*) Solon, J., and Baney, A. M.: General hospitals and nursing homes: Patterns and relationships in their geographic distribution. PHS Publication No. 492 (Public Health Monograph No. 44). U.S. Government Printing Office, Washington, D.C., 1956.

(*7*) U.S. Senate, Committee on Labor and Public Welfare: The condition of American nursing homes—A study by the Subcommittee on Problems of the Aged and Aging. 87th Cong., 2d Sess. U.S. Government Printing Office, Washington, D.C., 1960.

(*8*) Speir, H. B.: Characteristics of nursing homes and related facilities. Report of a 1961 nationwide inventory. PHS Publication No. 930–F–5. U.S. Government Printing Office, Washington, D.C., 1963.

(*9*) Haldeman, J. C.: Nursing homes, related facilities and programs. HEW Indicators, July 1963.

(*10*) Bryant, E. E.: Institutions for the aged and chronically ill, United States, April–June 1963. National Center for Health Statistics. PHS Publication No. 1000—Series 12—No. 1. U.S. Government Printing Office, Washington, D.C., July 1965.

(*11*) Wunderlich, G. S.: Characteristics of residents in institutions for the aged and chronically ill, United States, April–June 1963. National Center for Health Statistics. PHS Publication No. 1000—Series 12—No. 2. U.S. Government Printing Office, Washington, D.C., September 1965.

(*12*) Taube, C. A.: Characteristics of patients in mental hospitals, United States, April–June 1963. National Center for Health Statistics. PHS Publication No. 1000—Series 12—No. 3. U.S. Government Printing Office, Washington, D.C., December 1965.

(*13*) Bryant, E. E., and Taube, C. A.: Utilization of institutions for the aged and chronically ill, United States, April–June 1963. National Center for Health Statistics. PHS Publication No. 1000—Series 12—No. 4. U.S. Government Printing Office, Washington, D.C., February 1966.

(*14*) Taube, C. A.: Employees in nursing and personal care homes, United States, May–June 1964. National Center for Health Statistics. PHS Pub-

lication No. 1000—Series 12—No. 5. U.S. Government Printing Office, Washington, D.C., September 1966.

(*15*) ANHA survey shows big increase in nursing home capacity. Nursing Homes 15: 72–73, February 1966.

(*16*) PHS surveys licensed homes. Nursing Homes 15: 54, March 1966.

(*17*) Planning guide. Professional Nursing Home 9: 41–53, December 1967.

(*18*) Illinois Department of Public Health: Minimum standards, rules and regulations for nursing homes, revised April 1, 1965. Mimeographed.

(*19*) Cashman, J. W., and Myers, B. A.: Medicare: Standards of service in a new program—licensures, certification, accreditation. Amer J Public Health 57: 1107–1117 (1967).

(*20*) U.S. Congress: Social security amendments of 1965, Public Law 89–97. U.S. Government Printing Office, Washington, D.C., October 1965.

(*21*) American Medical Association, American Nursing Home Association, and American Hospital Association: Guides for medical care in nursing homes and related facilities. Chicago, Ill., June 1960.

(*22*) American Nurses' Association: Statement of standards for nursing care in nursing homes. New York, Aug. 5, 1960.

(*23*) U.S. Public Health Service: Nursing homes standards guide. PHS Publication No. 827. U.S. Government Printing Office, Washington, D.C., 1963.

(*24*) City of New York, Board of Hospitals: Hospital code. Pt. 1, Proprietary nursing homes. The City Record, Feb. 4, 1963.

(*25*) Council of State Governments, Committee of State Officials on Suggested State Legislation: Nursing homes. Suggested State Legislation 25: 15–31 (1966).

(*26*) Commission on Chronic Illness: Chronic illness in the United States. Vol. II. Care of the long-term patient. Harvard University Press, Cambridge, Mass., 1956.

(*27*) University of Pennsylvania School of Nursing: Report of a conference on nursing and convalescent home administration. Philadelphia, Dec. 9–13, 1957.

(*28*) U.S. Public Health Service: Report of a national conference on nursing homes and homes for the aged. PHS Publication No. 625. U.S. Government Printing Office, Washington, D.C., 1958.

(*29*) American Hospital Association, Committee on Chronic Illness: Conference on the care of patients with long-term illness. Chicago, May 7–10, 1958.

(*30*) American Hospital Association, American Medical Association, American Nursing Home Association. Blue Cross Commission, and U.S. Public Health Service: Proceedings of workshop on hospital-nursing home relationships. Chicago, Feb. 23–25, 1960.

(*31*) American Nursing Home Association: Improving patient care through education and regulation. Proceedings of the National Nursing Home Institute, Washington, D.C., Oct. 12–14, 1960.

(*32*) American Hospital Association: On the relationships between hospitals and homes for the aged. Chicago, May 16–18, 1962.

(*33*) American Hospital Association, American Association of Homes for the Aging, Blue Cross Association, and U.S. Public Health Service: On relationships among health care facilities. Chicago, July 21–23, 1964.

(*34*) Massachusetts Department of Public Health and Massachusetts Health Research Institute, Inc.: Proceedings of the institute on provision of social services for nursing home patients. Boston, Sept. 23–25, 1964.

(*35*) Odoroff, M. E., Baney, A. M., and Stageman, A. B.: Costs of operating nursing homes and related facilities. PHS Publication No. 754. U.S. Government Printing Office, Washington, D.C., revised February 1962.

(*36*) U.S. Senate, Special Committee on Aging, Subcommittee on Nursing Homes: Nursing homes. (*a*) pt. 1, Portland, Oreg., Nov. 6, 1961; (*b*) pt. 2, Walla Walla, Wash., Nov. 10, 1961; (*c*) pt. 3 Hartford, Conn., Nov. 20, 1961; (*d*) pt. 4, Boston, Mass., Dec. 1, 1961; (*e*) pt. 5, Minneapolis, Minn., (*f*) pt. 6, Springfield, Mo., Dec. 12 1961. 87th Cong., 1st Sess. U.S. Government Printing Office, Washington, D.C., 1962.

(*37*) U.S. Public Health Service, Division of Hospital and Medical Facilities: Nursing homes and related facilities fact book. PHS Publication No. 930–F–4. U.S. Government Printing Office, Washington, D.C., February 1963.

(*38*) Pfahl, J.: Nursing home costs. Ohio's Health 17: 23–30, September 1965.

(*39*) U.S. House of Representatives, House Committee on Veterans' Affairs: Nursing home care for veterans. Report No. 680. 88th Cong., 1st Sess. U.S. Government Printing Office, Washington, D.C., Aug. 14, 1963.

(*40*) Kansas State Department of Health: Kansas long-term care study. March 1964. Topeka. Processed.

(*41*) California Association of Nursing Homes, Sanitariums, Rest Homes and Homes for the Aged, Inc.: Cost of patient care in California nursing and convalescent homes, June 1964. Los Angeles. Processed.

(*42*) U.S. Senate, Special Committee on Aging, Subcommittee on Long Term Care: Conditions and problems in the nation's nursing homes. Pt. 2, Cleveland, Ohio, Feb. 15, 1965. 89th Cong., 1st Sess. U.S. Government Printing Office, Washington, D.C., 1965.

(43) U.S. Senate, Special Committee on Aging, Subcommittee on Nursing Homes: Conditions and problems in the nation's nursing homes. Pt. 3, Los Angeles, Calif., Feb. 17, 1965. 89th Cong., 1st Sess. U.S. Government Printing Office, Washington, D.C., 1965.

(44) U.S. Senate, Special Committee on Aging, Joint Subcommittee on Long Term Care: Long-term institutional care for the aged. Dec. 17–18, 1963. 88th Cong., 1st Sess. U.S. Government Printing Office, Washington, D.C., 1964.

(45) U.S. Senate, Special Committee on Aging, Joint Subcommittee on Long Term Care: Nursing homes and related long-term care services. (a) pt. 1, Washington, D.C., May 5, 1964; (b) pt. 2, Washington, D.C., May 6, 1964. 88th Cong., 2d Sess. U.S. Government Printing Office, Washington, D.C., 1964.

(46) Planning guide—A nationwide survey of nursing homes and homes for the aging. Professional Nursing Home 6: 21–36, December 1964.

(47) De Bruyn, J. P.: Illinois nursing homes report on costs. Nursing Home Administrator 19: 52–57, November–December 1965.

(48) U.S. Senate, Special Committee on Aging, Subcommittee on Long Term Care: Conditions and problems in the nation's nursing homes. (a) pt. 1, Indianapolis, Ind., Feb. 11, 1965; (b) pt. 4, Denver, Colo., Feb. 23, 1965. 89th Cong., 1st Sess. U.S. Government Printing Office, Washington, D.C., 1965.

(49) Sondag, R. F., and Kramer, C. H.: Nursing home placement: The physician's role. Illinois Med J 128: 420–428 (1965).

(50) Clark, E., et al.: Patient care in nursing homes. A look at responsibility. JAMA 200: 144–147, Apr. 10, 1967.

(51) Breslow, L.: New partnerships in the delivery of services—A public health view of the need. Amer J Public Health 57: 1094–1099, July 1967.

(52) Peterson, P. Q.: The impact of recent Federal legislation on personal health services. Amer J Public Health 57: 1091–1093, July 1967.

(53) Winston, E.: Health-welfare partnership in programs for low income groups. Amer J Public Health 57: 1100–1106, July 1967.

(54) Babcock, C. I.: A place for the old folks to live. Nat Fire Protection Quart, pp. 3–17, July 1957.

(55) National Fire Protection Association: Occupancy fire record. Homes for the aged. Fire Record FR 63–1, Boston, 1963.

(56) Juillerat, E. E.: The Golden Age nursing home fire. Nat Fire Protection Quart, pp. 3–7, January 1964.

## Increase in Arthritis Patients

New figures from a survey indicate that the U.S. population with some form of arthritis is 16,800,000, according to the 20th anniversary annual report, 1967, of the Arthritis Foundation. This is an increase of more than 3 million over previous estimates of the country's arthritic population. One in 11 persons has arthritis. The old figure was one in 16.

The new estimate of the prevalence of arthritis resulted from a National Health Interview Survey conducted in 1966–67 by the Public Health Service's National Center for Health Statistics. Complete results of the survey will be made public later.

In addition to the figure for the overall prevalence of arthritis and a revised estimate of disability from the disease, the foundation cited the following statistics in its current report.

1. An estimated 3,400,000 patients with arthritis are disabled—limited in their usual activities—at any one time.

2. Including annual wage losses and medical care costs, the total annual cost of arthritis to the national economy is estimated at more than $3.5 billion.

3. The total 1968 national investment in research and training against arthritis is estimated at $15 million.

The foundation, a voluntary health agency, also reported that its headquarters office and chapters together collected $7,072,604 in fiscal year 1967. This amount is 16.7 percent more than collections in fiscal year 1965–66.

Twenty-four percent of combined expenditures went to research, 23 percent to professional health education and training, and 21.6 percent to patient and community services.